

TITLE 83: PUBLIC UTILITIES
CHAPTER I: ILLINOIS COMMERCE COMMISSION
SUBCHAPTER C: ELECTRIC UTILITIES

PART XXX

INTERCONNECTION OF DISTRIBUTED ~~RESOURCES~~ TO ELECTRIC UTILITY
DISTRIBUTION SYSTEMS **[revised to be consistent with the new definition added
in Section XXX.010]**

Deleted: GENERATION
EQUIPMENT

Section XXX.010	Definitions
Section XXX.020	Purpose
Section XXX.030	Applicability
Section XXX.040	Interconnection Agreement
Section XXX.050	Application for Interconnection
Section XXX.060	Initial Review
Section XXX.070	Primary Screening Criteria
Section XXX.080	Secondary Screening Criteria
Section XXX.090	Results of Initial Review
Section XXX.100	Scoping Meeting
Section XXX.110	Feasibility/Impact Study
Section XXX.120	Facilities Study
Section XXX.130	Compliance
Section XXX.140	Designation of Interconnection Provider Contact Persons
Section XXX.150	All Reasonable Efforts
Section XXX.160	Metering
Section XXX.170	Installation and Commissioning
Section XXX.180	Reporting Requirements
Section XXX.190	Complaint Procedures

AUTHORITY: Implementing Section 9-241 and authorized by Section 10-101 of the Public Utilities Act [220 ILCS 5/9-241 and 10-101].

SOURCE: Adopted at ____ Ill. Reg. _____, effective _____.

Section XXX.010 Definitions

Affected Systems – means any electric system that is either directly or indirectly connected to the interconnection provider's electric system that could be affected by the interconnection and parallel operation of the interconnection customer's ~~distributed resource~~.

Deleted: adversely

Deleted: distributed generation
equipment

Aggregate Generation Capacity - means the sum of the generating capacities of all distributed resources, as stated on their nameplates, connected to a circuit or circuit line section. **[added for clarification]**

Agreement –an interconnection and parallel operation agreement for a distributed resource by and between the interconnection provider and the interconnection customer.

Deleted: distributed generation equipment

~~[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]~~

Deleted: Automatic Disconnect Device – an electronic or mechanical switch used to isolate a circuit or piece of equipment from a source of power without the need for human intervention.

~~[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]~~

Deleted: ¶

~~[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]~~

Deleted: Delivery Service - the services the interconnection provider may provide to deliver capacity or energy generated by interconnection customer to a buyer or delivery point.

~~[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]~~

Deleted: ¶

Distributed Resource - means a source of electric power that is not directly connected to a bulk power transmission system, which includes both generators and energy storage technologies.

Deleted: Disconnect (verb) - to isolate a circuit or distributed generation equipment from a source of power. If isolation is accomplished with a solid-state device, "disconnect" shall mean to cease the transfer of power.

~~[The proposed term "Distributed Generation Equipment" was not clearly defined, so it was replaced with IEEE's definition for "Distributed Resource" which more accurately captures the types of facilities whose interconnection are most likely to fall under jurisdiction of the ICC.]~~

Deleted: ¶

Facilities Study – a study, executed in accordance with Section XXX.120, which determines specific changes and/or additions to the ~~[this rule should not tie this distinction to voltage]~~ transmission or electric distribution system(s) necessary to interconnect a distributed resource, the magnitude of costs for those changes and/or additions, and the time required to complete the interconnection.

Deleted: Disconnect Switch – a mechanical device used for isolating a circuit or distributed generation equipment from a source of power.

Deleted: ¶

Feasibility/Impact Study - a study, executed in accordance with Section XXX.110, which identifies the effect(s) of interconnecting the distributed resource to the electric distribution system, including identification of potential violations and the effect the interconnection would have on system reliability. The feasibility/impact study also estimates the magnitude of costs associated with facilities and/or system modifications necessary for completing the interconnection.

Deleted: Generation Equipment - includes

Deleted: any on-site small resources, distributed generation facilities, self-generators, small electric generation facilities and electric customer-generators.

Deleted: ¶

FERC – means the Federal Energy Regulatory Commission

Deleted: high voltage

Generation Capacity - The capability of the distributed resource as stated on its nameplate. **[added for clarification]**

Deleted: distributed generation equipment

Deleted: and to determine, with accuracy, the cost of

IEEE – means Institute of Electrical and Electronics Engineers, Inc., a non-profit technical professional organization responsible with members in 150 countries, responsible for technical publishing, conferences, and consensus-based standards activities.

Deleted: The facilities study may also include suggested changes to the Interconnection customer's proposed distributed generation equipment if the interconnection customer believes such changes would reduce interconnection costs.

Interconnection Customer – means any entity proposing to interconnect a distributed resource to an interconnection provider's system or any entity that has entered into a valid interconnection agreement with an interconnection provider.

Deleted: small resource

Deleted: high voltage transmission or

Deleted: generation

Deleted: s

Interconnection Provider – means an electric utility as defined by the Illinois Public Utilities Act. **[What about public utilities providing electric service that are not electric utilities, e.g., ATC?]**

Line Section - means that section of the distribution system between two sectionalizing devices in the area electric power system, as defined in national industry standards.
[added for clarification]

[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]

Parallel Operation - The operation of any distributed resource connected to an interconnection provider's circuits for a period of six (6) or more cycles. **[added for clarification]**

Point of Common Coupling - The point at which the interconnection between the interconnection provider's system and the interconnection customer's distributed resource interface occurs.

Primary Screening Criteria – the criteria listed in Section XXX.070.

[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]

Secondary Screening Criteria – the criteria listed in Section XXX.080

[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]

[deleted because it is captured in the definition for "Distributed Resource"]UL – Underwriters Laboratory, Inc., an independent, not-for-profit product safety testing and certification organization operating in Canada, Europe, Asia, Latin America, and the U.S.A.

[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]

[deleted because the defined term was not used in the text of the rule, the form applications, or the interconnection agreement]

Violation – a condition on a transmission or distribution system that is considered unacceptable under the established planning or operating standards or practices of the interconnection provider.

Section XXX.020 Purpose

The purpose of this Code Part is to state the terms and conditions that govern the interconnection and parallel operation of distributed resources, and to establish

Deleted: Islanding – a condition in which a portion of the interconnection provider's system that contains both load and a small resource is isolated from the remainder of the interconnection customer's system.

Deleted: ¶

Deleted: (PCC)

Deleted: distributed generation equipment

Deleted: Typically, this is the customer side of the interconnection customer's meter. ¶

Deleted: Radial Feeder - a distribution line that branches out from a substation and is normally not connected to another substation or another circuit sharing the common supply of electric power.

Deleted: Short Circuit Contribution – the result of dividing the maximum short circuit contribution of the small resource(s) by the short circuit contribution available from the Company system without the small resource(s), converted to a percentage.

Deleted: ¶

Deleted: Small Resource - includes any on-site small resources such as distributed generation facilities, self-generators, small electric generation facilities and electric customer-generators (see also "Distributed Generation Equipment")

Deleted: ¶
¶

Deleted: Utility Grade Relay - a relay that is constructed to comply with, as a minimum, the most current version of the industry standards for non-nuclear interconnection provider facilities.

Deleted: ¶

Deleted: Verification Test - a test performed upon initial installation and repeated periodically to determine that there is continued acceptable performance.

Deleted: ¶

Deleted: high voltage

Deleted: power

Deleted: distributed generation equipment

Deleted: in order to give all Illinois electric customers the ability to utilize distributed generation equipment, to provide cost savings and reliability benefits to customers,

technical requirements that will allow the safe and reliable parallel operation of distributed resources. **[Revised to more accurately define the scope of the proposed rule and to remove the implication that all distributed resource interconnections provide a cost or system reliability benefit to all of ComEd's customers.]**

Deleted: promote

Deleted: distributed generation equipment

Deleted: , to enhance both the reliability of electric service and economic efficiency in the production and consumption of electricity, and to facilitate the use of distributed generation equipment in order to provide electric system benefits during periods of capacity constraints.

Deleted: ¶

Section XXX.030 Applicability

- a) All interconnection providers are required to adhere to the provisions in Code Part XXX. The interconnection procedures in Code Part XXX are available to interconnection customer's proposing to interconnect a distributed resource to the interconnection provider's electric distribution system. The provisions of this Code Part XXX do not apply to interconnections within the exclusive jurisdiction of the FERC.
- b) Terms used herein shall have the meanings specified in Section XXX.010 Definitions.
- c) Neither these procedures nor the requirements included hereunder apply to distributed resources interconnected or approved for interconnection with distribution systems prior to 60 business days after the effective date of these procedures.

Deleted: distributed generation equipment

Deleted: or high voltage transmission system

Deleted: distributed generation equipment

Deleted: electric power transmission or

Section XXX.040 Interconnection Agreement

- a) The interconnection provider shall issue an interconnection agreement to the interconnection customer if:
 - 1) The interconnection customer submits a completed application to the interconnection provider in accordance with Section XXX.050; and
 - 2) based upon the initial review of the application pursuant to Section XXX.060, the interconnection customer's proposed distributed resource meets the specifications in IEEE 1547-2003 and all other applicable codes and standards, and the interconnection customer passes the primary screening criteria in Section XXX.070 and/or secondary screening criteria in XXX.080; or
 - 3) after undergoing a feasibility/impact study under Section XXX.110 and, if necessary, a facilities study under Section XXX.120 and the interconnection provider determines that the distributed resource

Deleted: customer

Deleted: distributed generation equipment

Deleted: I

Deleted: small resource

may be interconnected safely and reliably with modifications to the interconnection provider's electric transmission and/or distribution system(s), modifications to the interconnection provider's facilities and/or modifications to the interconnection customer's facilities.

Deleted: or no modifications whatsoever.

Section XXX.050

Application for Interconnection

- a) To assist an interconnection customer in the interconnection process and in accordance with Section XXX.140, the interconnection provider shall designate an employee or office from which information on the application process and on the affected system of an interconnection provider can be obtained through informal requests from the interconnection customer presenting a proposed project for a specific site, after execution by the interconnection customer of a confidentiality and non-disclosure agreement provided by the interconnection provider. System information provided to interconnection customers should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the system. The interconnection provider shall comply with requests for such information. **[added requirement for execution of a non-disclosure agreement to address heightened sensitivity to the safety of the system]**
- b) The interconnection customer shall submit an application to the interconnection provider in the form in Appendix B - "Short Form Application for Single Phase Attachment of Parallel Generation Equipment 25 kVA or Smaller to the Electric System" or the form in Appendix C - "Standard application for Attachment of Parallel Generation Equipment to the Electric System" for single phase equipment larger than 25 kVA or for three-phase equipment of any size. Applications shall be submitted by electronic mail or fax so that they will be automatically date-and time-stamped upon receipt. The original date-and time-stamp applied to the application at the time of its original submission for interconnection shall be accepted as the qualifying date-and time-stamp for the purposes of any timetable in this Code Part. The interconnection provider shall provide a notification of receipt to the interconnection customer within 5 business days of receiving the interconnection customer's application. The interconnection provider will notify the interconnection customer within 20 business days of the receipt of the application whether the application is complete or incomplete.
- c) If the application is incomplete, the interconnection provider will provide along with the notice that the application is incomplete, a list detailing all information that must be provided to complete the application. The interconnection customer will have 15 business days after receipt of the notice to submit the listed information or to request an extension of time to

Deleted: 20

Deleted: 0

Deleted: Applications

Deleted: shall be

Deleted: 3

Deleted: 10

Deleted: 10

provide such information. If the interconnection customer does not provide the listed information or a request for an extension of time within the 10 business day deadline, the application will be deemed withdrawn. An application will be complete upon submission of the listed information to the interconnection provider.

- d) Certain applications may require minor modifications while being reviewed by the interconnection provider. Such minor modifications to a pending application shall not require the filing of a new application. Any modification to machine data or equipment configuration or to the interconnection site of the distributed resource not agreed to in writing by the interconnection provider and the interconnection customer may be deemed a withdrawal of the application and may require submission of a new application. However, when it is mutually agreed that machine data or equipment configuration modifications will have no significant effect on the distributed resource interconnection, the interconnection provider will not require the interconnection customer to submit a new application.

Deleted: small resource

Deleted: small resource

- e) The interconnection provider shall treat the application and any communications concerning the nature of proposed distributed resource interconnection confidentially. The interconnection provider shall not use such knowledge of proposed distributed resource projects submitted to it for interconnection or study to prepare competing proposals to the interconnection customer that offer either discounted rates in return for not installing the distributed resource, to offer competing proposals to install distributed resource, or for any purpose other than facilitating the application and interconnection processes. **[interconnection providers that are affiliates with other transmission providers and have transmission systems under the control of a common ISO/RTO may need to consult with one another regarding any potential impacts to their respective systems]**

Deleted: small resource

Deleted: small resource

Deleted: generation

Deleted: distributed generation equipment

Deleted: The interconnection provider is prohibited from sharing any information about proposed small resource interconnections with its affiliates.

- f) The interconnection provider shall process all applications in a non-discriminatory manner. Applications will be processed in the order that they are received.

- g) The interconnection customer shall submit to the interconnection provider, with its interconnection application, proof of site control for the distributed resource. Documentation of site control must be demonstrated through:

- 1) a recorded deed, recorded lease or recorded agreement proving ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing a distributed resource;

Deleted: Documentation of

Deleted: must be submitted for small resource

Deleted: additions with the complete application

Deleted: S

Deleted: may

Deleted: small resource

Deleted: facility

- 2) a recorded option to purchase/acquire a site and / or a leasehold interest in a site for such purpose. **[this does not provide sufficient certainty regarding required land rights]**

Deleted: an

Deleted: or

Deleted: ; or ¶

¶
3) an exclusivity or other business relationship between small resource facility and the entity having the right to sell, lease or grant the small resource facility the right to possess or occupy a site for such purpose

Deleted: 15

Section XXX.060 Initial Review

Within 20 business days after interconnection provider notifies interconnection customer it has received a complete application the interconnection provider shall perform an initial review using the primary and secondary screening criteria set forth in Section XXX.070 and Section XXX.080 respectively, shall notify interconnection customer of the results in accordance with Section XXX.090 and include with the notification copies of the analysis and data underlying the interconnection provider's determinations under the screens. Interconnection provider shall keep a current list of its charge per engineering man-hour posted on its website, and interconnection customer shall be responsible for paying all actual costs associated with the initial review.

Deleted: Interconnection providers shall file tariffs that include rates for the initial review. Such rates shall be differentiated by the nameplate capacity of the generator being interconnected and characteristics of the circuit at the proposed point of interconnection.

Deleted:

Section XXX.070 Primary Screening Criteria

The primary screens required in this section include the following:

- a) For interconnection of a proposed distributed resource to a radial distribution circuit, the aggregate generation capacity, including the proposed distributed resource generation capacity, on the circuit will not exceed 5% of the total circuit annual peak load or 50% of the total circuit annual minimum load, whichever is less, as most recently measured at the substation. **[revised to be consistent with ComEd's current practice, and generally accepted industry practice]**
- b) For interconnection of a proposed distributed resource to the line or load side of spot network protectors, the proposed distributed resource must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, will not exceed the smaller of 5% of a spot network's maximum load or 50 kW.
- c) The proposed distributed resource cannot be connected on the line or load side of a secondary network protector, except as allowed under (b) above for a spot network. Synchronous distributed generation facilities cannot be interconnected to a network circuit. **[For system reliability reasons, ComEd does not permit distributed resources to interconnect to a network circuit, except as set forth in paragraph (b) above. The IEEE (IEEE C37.108-2002 section 9) also recommends against connection of distributed resources on the load side of network protectors, unless the network protectors have been constructed to circuit breaker standards with full fault-duty interrupting capability; even then, the presence of generation of sufficient size on a secondary network could cause an unacceptable**

Deleted: small resource

Deleted: d

Deleted: small resource

Deleted: small resource

Deleted: small resource

Deleted: small resource

number of operations of the network protection equipment. Furthermore, connection on the "line" side can also result in a distributed resource feeding back through a network and causing network protector operations. Accordingly, ComEd added the "line or" language to assure that network protectors shall not be utilized to switch a distributed resource from an Area EPS as stated in IEEE 1547 section 4.1.4.2.]

- d) The proposed distributed resource, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum short circuit current at the point on the high voltage (primary) level nearest the proposed point of common coupling. Deleted: small resource
- e) The proposed distributed resource, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or interconnection customer distributed resource on the system to exceed 85% of the short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds 85% of the short circuit interrupting capability. Deleted: small resource
Deleted: distributed generation equipment
- f) The proposed distributed resource, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the interconnection customer proposes to interconnect the distributed resource, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., 3 or 4 transmission voltage level busses from the point of interconnection). Deleted: small resource
Deleted: small resource
- g) For interconnection of a proposed single-phase distributed resource where the primary distribution system is three-phase, four-wire, the distributed resource will be connected line-to-neutral. For interconnection of a proposed single-phase distributed resource where the primary distribution system is three-phase, three-wire, the distributed resource will be connected line-to-line. Deleted: small resource
Deleted: small resource
Deleted: small resource
Deleted: small resource
- h) For interconnection of a proposed three-phase distributed resource to a three-phase four-wire distribution circuit or a distribution circuit having mixed three-wire and four-wire sections, the aggregate generation capacity including the proposed distributed resource will not exceed 10% of line section peak load. Deleted: small resource
Deleted: small resource

- i) If the proposed distributed resource is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed distributed resource, will not exceed 25 kVA. **[revised to be consistent with ComEd's current practice]**
- j) If the proposed distributed resource is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.
- k) The proposed distributed resource's point of common coupling will not be on a transmission line.

Deleted: small resource

Deleted: small resource

Deleted: 0

Deleted: small resource

Deleted: small resource

Section XXX.080 Secondary Screening Criteria

The secondary screens include the following:

- a) For interconnection of a proposed distributed resource to a radial distribution circuit, the new distributed resource's generation capacity and the aggregate generation capacity on the circuit will not exceed 15% of total circuit peak load or 50% of the total circuit annual minimum load, whichever is less, as most recently measured at the substation; nor will it exceed 15% of a distribution circuit line section annual peak load or 50% of the distribution circuit line section annual minimum load, whichever is less. **[revised to be consistent with ComEd's current practice, and generally accepted industry practice]**
- b) For interconnection of a proposed distributed resource to the line or load side of spot network protectors, the proposed distributed resource must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, will not exceed the smaller of 5% of a spot network's maximum load or 50 kW and must comply with all requirements of approved industry standards for interconnection technical specifications and requirements.
- c) Synchronous distributed generation cannot be interconnected to a network circuit. **[see comment to Section XXX.070 (c)]**
- d) For interconnection of a proposed distributed resource that utilizes inverter-based protective functions, both of which include reverse power relay functions, the distributed resource's total net generation capacity, in aggregate with other distributed resources interconnected on the line or load side of network protective devices, does not exceed the lesser of

Deleted: small resource

Deleted: small resource

Deleted: in aggregate with other generation

Deleted: A line section is defined as that section of the distribution system between two sectionalizing devices in the area electric power system, as defined in national industry standards.

Deleted: small resource

Deleted: small resource

Deleted: For the interconnection of a proposed small resource to any network, the small resource must utilize a protective scheme that will ensure that its current flow will not affect the network protective devices including reverse power relays or a comparable function.

Deleted: small resource

Deleted: s

Deleted: secondary

Deleted: small resource

Deleted: that is an induction generator or

Deleted: small resource

Deleted: ng

Deleted: small resource

10% of the minimum load on the network or 50 kW. A distributed resource does not export to any network.

Deleted: small resource

- e) The proposed distributed resource, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

Deleted: small resource

- f) The proposed distributed resource in aggregate with other generation on the distribution circuit will not cause any distribution equipment, protective devices (including but not limited to substation breakers, fuse cutouts, and line reclosers), or interconnection customer equipment on the system to exceed 90% of their short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds the 90% short circuit interrupting capability limit.

Deleted: small resource

- g) The proposed distributed resource's point of common coupling will not be on a transmission line.

Deleted: small resource

Section XXX.090 Results of Initial Review

- a) If the initial review determines that the proposed interconnection passes the primary screening criteria, then the interconnection application will be approved and the interconnection provider will provide interconnection customer an executable interconnection agreement within 10 business days after the determination.

Deleted: 5

Deleted: small resource

Deleted: 5

Deleted: small resource

Deleted: 5

Deleted: d)

- b) If the initial review determines that the proposed interconnection passes the secondary screening criteria and fails the primary screening criteria, but the interconnection provider determines through the initial review that the distributed resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection provider will provide the interconnection customer an executable interconnection agreement within 10 business days after the determination.

Deleted: If the initial review determines that the proposed interconnection fails the primary screening criteria and passes the secondary screening criteria, but the interconnection provider determines from the initial review that the small resource cannot be interconnected consistent with safety, reliability, and power quality standards unless the interconnection customer is willing to consider modifications to the small resource, the interconnection provider will describe, in writing or through electronic mail within 10 business days after the determination, small resource modifications necessary for the interconnection customer to interconnect with the interconnection provider's system. Such recommendations shall include copies of data and analyses underlying the interconnection provider's determination of the need for small resource modifications and a detailed explanation of the modifications.

- c) If the initial review determines that the proposed interconnection fails both the primary screening criteria and the secondary screening criteria, but the interconnection provider determines through the initial review that the distributed resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection provider will provide interconnection customer an executable interconnection agreement within 10 business days after the determination.

[The interconnection provider should not be recommending changes to the customer's "distributed resource." The interconnection provider's role is to determine and notify the customer of any modifications required on the interconnection provider's system, or to the customer's electrical facilities (such as relays), but not modifications to the distributed resource itself. The former is adequately addressed in other provisions of this rule.]

Deleted: The interconnection provider shall forward an executable interconnection agreement to interconnection customer within 10 business days after confirmation that the interconnection customer has agreed to make the necessary changes to the small resource at the interconnection customer's cost.

- d) If the initial review determines that the proposed interconnection fails the primary screening criteria and passes the secondary screening criteria, but the interconnection provider determines from the initial review that the distributed resource cannot be interconnected consistent with safety, reliability, and power quality standards unless the interconnection customer is willing to consider modifications to the interconnection provider's system or facilities, the interconnection provider will recommend, in writing or through electronic mail within 20 business days of the determination, system or facility modifications necessary for the interconnection customer to interconnect with the interconnection provider's system. Such recommendations shall include copies of data and analyses underlying the interconnection provider's determination of the need for system or facilities modifications, a detailed explanation of the necessary system or facility modifications, an estimated time for the completion of the system or facility modifications and a good faith cost estimate to complete the system or facility modifications. Within 30 business days, the interconnection customer must issue payment to the interconnection provider for the system or facility modifications in order to be considered for interconnection.

Deleted: e

Deleted: small resource

Deleted: 10

Deleted: with a binding maximum value

Deleted: When the actual cost of the necessary facility or system modifications is below the binding maximum cost estimate, the interconnection provider shall refund the difference to the interconnection customer without interest.

The interconnection provider shall forward an executable interconnection agreement to interconnection customer within 10 business days after confirmation that the interconnection customer has agreed to pay for the necessary system or facility modifications to the interconnection provider's system.

- e) If the initial review determines that the proposed interconnection fails both the primary and the secondary screening criteria and the interconnection provider determines from the initial review that the distributed resource cannot be interconnected consistent with safety, reliability, and power quality standards, then the proposed interconnection will be addressed under Section XXX.XXX – Scoping Meeting.

Deleted: f

Deleted: small resource

The scoping meeting described herein is available to an interconnection customer whose application for interconnection to the interconnection provider's system fails both the primary and secondary screening criteria and the interconnection provider has determined that the distributed resource cannot be interconnected without further studies.

Deleted: distributed generation equipment

a) At the request of either party, a scoping meeting will be held within 15 business days, or as otherwise mutually agreed to by the parties, after the interconnection provider notifies the interconnection customer that the application fails both the primary and secondary screening criteria. The interconnection provider and interconnection customer will bring to the meeting personnel, including system engineers, and other resources as may be reasonably required to accomplish the purpose of the meeting.

Deleted: 10

b) The purpose of the scoping meeting shall be to discuss the interconnection customer's interconnection request, and review existing studies relevant to the interconnection customer's interconnection request. The parties shall further discuss whether the interconnection provider should perform a feasibility/impact study in accordance with Section XXX.110. If the parties agree that a feasibility/impact study should be performed, the interconnection provider will provide interconnection customer, no later than 15 business days after the scoping meeting, a feasibility/impact study agreement including an outline of the scope of the study and a good faith cost estimate to perform the study.

Deleted: 5

Deleted: with a binding maximum value

c) The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, the interconnection customer requesting a feasibility/impact study must return the executed feasibility/impact study agreement within 15 business days in accordance with Section XXX.110.

Deleted: Interconnection

Section XXX.110 Feasibility/Impact Study

The purpose of the feasibility/impact study is to identify the effect(s) of interconnecting the distributed resource to the electric distribution system, including identification of potential violations, the effect the interconnection would have on system reliability, and to assist in the determination of a good faith cost estimate of any facility modifications required for interconnection.

Deleted: small resource

Deleted: high voltage transmission or

Deleted: maximum binding

Deleted: A deposit of fifty percent of the

Deleted: binding maximum

Deleted: may

a) The full amount of the interconnection provider's cost estimate of the feasibility/impact study costs shall be required from the interconnection customer within 15 business days from the receipt of the feasibility/impact study agreement. Any study fees will include a summary of professional time. In performing the feasibility/impact study, the interconnection provider shall rely, to extent reasonably practicable, on existing studies of

Deleted: An Interconnection customer must pay the remainder of the study fees that exceed the deposit within 20 business days of receipt of the invoice or resolution of any dispute but shall pay no more than the interconnection provider's binding maximum cost estimate. If the deposit exceeds the invoiced fees, the interconnection provider will refund the excess amount within 20 business days of the invoice without interest.

recent vintage. In estimating the costs of the feasibility/impact study, the interconnection customer shall not be charged for such existing studies; however, the interconnection customer will be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility/impact study except for amounts that exceed the cost estimate provided by the interconnection provider.

Deleted: The

Deleted: will not

Deleted: binding maximum value of the interconnection provider's

b) The feasibility/impact study shall include the following analyses:

- 1) Short circuit analysis: including identification of any equipment short circuit capability limits exceeded as a result of the interconnection,
- 2) Power flow analysis: including identification of any potential thermal overload or voltage limit violations resulting from the interconnection,
- 3) Voltage drop and flicker analysis: Including an examination of the expected magnitude and frequency of occurrence,
- 4) Protection analysis: Including coordination studies and identification of necessary changes in equipment,

Deleted: coordination set points, and/or grounding requirements as a result of the interconnection, and

- 5) Good faith cost estimate for any system or facility modifications and a time estimate for completion of such modifications including: a description of all facility and/or system modifications required to interconnect the distributed resource to an electric distribution power system. The estimate shall itemize costs to address all potential violations that are a direct result of the interconnection, including short circuit, power flow, voltage, and protection issues. **[see comments to proposed Section XXX.090 (d)]**

Deleted: C

Deleted: with a binding maximum value

Deleted: small resource

Deleted: or directly to a high voltage transmission system

Deleted: The provider may also suggest modification(s) to the interconnection customer's proposed facilities if such modifications would help to address potential violations.

c) The feasibility/impact study will consider all generating facilities that, when the feasibility/impact study is performed:

- 1) Are directly interconnected to the electric distribution system; or
- 2) Are interconnected to affected systems and may have an impact on the interconnection request; and
- 3) Have a pending higher queued interconnection request to interconnect to the transmission and/or the electric distribution system.

Deleted: high voltage transmission system and/or

Deleted: power

Deleted: high voltage

Deleted: power

Deleted: d) A feasibility/impact study shall consider interconnection of the small resource regardless of its initial indicated purpose in order to avoid the further expense and interruption of operation for reexamination should the interconnection customer later change the purpose.

[The purpose of this provision is unclear, and can be interpreted to mean that the customer could change the indicated purpose of its distributed resource from

one that falls under the jurisdiction of the ICC (e.g. self-generation) to one that falls under the jurisdiction of the FERC (e.g. to sell power at wholesale) without any consequence, which is not acceptable. Or, the change in purpose could affect its feasibility, even if it does not change its jurisdictional character.]

[As proposed, this provision would enable a customer to take advantage of queue position and request multiple studies to be conducted as one, to the detriment of other customers lower in the queue. It additionally would necessarily impact the time required by the interconnection provider to complete the studies, yet no additional time is allotted.]

Deleted: ¶

Deleted: e) If so requested by the interconnection customer, a feasibility/impact study will consider multiple potential points of interconnection at a proposed project site, at the interconnection customer's cost.

f) Within 45 business days from the date an authorized feasibility/impact study agreement and payment are received from the interconnection customer, the interconnection provider shall transmit a feasibility/impact study report to the interconnection customer that details the results of the feasibility/impact study.

Deleted: deposit

1) In instances where the feasibility/impact study shows no potential for transmission system or electric distribution system violations, the interconnection provider will immediately send the interconnection customer either a facilities study agreement, including an outline of the scope of the study and a good faith cost estimate to perform the study, or an interconnection agreement in the event that no facilities study is required for interconnection.

Deleted: high voltage

Deleted: power

Deleted: with a binding maximum value

2) In instances where a feasibility/impact study shows potential for transmission system or electric distribution system violations, and the affected systems are operated by the interconnection provider, the required remedial action(s) and the estimated cost of taking such remedial action(s), shall be included in the feasibility/impact study report. If necessary, the interconnection provider will send the interconnection customer a facilities study agreement in accordance with Section XXX.120.

Deleted: high voltage

Deleted: power

Deleted: binding maximum

Deleted: including an assignment of costs responsibilities,

3) In instances where the distributed resource is to be connected to the interconnection provider's distribution system, but the feasibility/impact study shows potential for transmission system violations and the interconnection provider does not operate the transmission system:

Deleted: small resource

Deleted: high voltage

Deleted: high voltage

i) Within 10 business days following transmittal of the feasibility/impact study report, the interconnection provider shall notify the appropriate transmission service provider in accordance with any interconnection notification protocols as provided for in the transmission provider's Open Access Transmission Tariff on file with the FERC.

Deleted: 5

Deleted: high voltage

Deleted: high voltage

ii) Within 15 business days the interconnection provider shall send the interconnection customer a transmission impact study agreement, including an outline of the scope of the study and a good faith estimate of the cost to perform the study. In order to remain under consideration for interconnection, the interconnection customer must return an executed transmission impact study agreement and payment of the estimated cost of the impact study within 30 business days.

Deleted: 5

Deleted: binding maximum

Deleted: a deposit

Deleted: equivalent of half the

Deleted: Interconnection customers must pay any study costs that exceed the deposit within 20 business days of receipt of the invoice or resolution of any dispute up to the binding maximum cost estimate. If the deposit exceeds the invoiced costs, interconnection provider will return such excess within 20 business days of the invoice without interest.

iii) The interconnection provider shall coordinate the transmission impact study, and shall attempt to convey results to the Interconnection customer within 45 business days of the receipt of the authorized transmission impact study agreement and payment.

Deleted: customer

Deleted: deposit

iv) Within 30 days of receipt of the results of the transmission impact study, the interconnection customer must notify the interconnection provider of its intention to proceed. If the interconnection customer chooses to proceed, the interconnection provider will send the interconnection customer a facilities study agreement in accordance with Section XXX.120.

4) Where transmission systems and electric distribution systems have separate owners, [TDU cases do not always involve separate owners] the interconnection customers may apply to the nearest transmission provider (Transmission Owner, Regional Transmission Operator, Independent Transmission interconnection customer, or Independent Transmission Provider) providing transmission service supporting the distribution facilities to request project coordination if that transmission provider is notified in accordance with interconnection notification protocols as provided for in the transmission provider's open access transmission tariff on file with the FERC. In such cases, the interconnection provider shall be provided a copy of the transmission impact study report, but shall not be responsible to coordinate the transmission impact study.

Deleted: high voltage

Deleted: power

Deleted: such as is the case with transmission-dependent utilities ("TDUs")—whether investor-owned or not,

Deleted: high voltage

Deleted: to

Deleted: TDU

Deleted: high voltage

Deleted: high voltage

1) Within 30 days of receipt of the results of the transmission impact study, the interconnection customer must notify the interconnection provider of its intention to proceed. If the interconnection customer chooses to proceed, the interconnection provider will send the interconnection

customer a facilities study agreement in accordance with Section XXX.120. [This appears to be out of place, or the wrong “level” in the outline]

Section XXX.120

Facilities Study

The purpose of the facilities study is to determine specific modifications to the transmission or electric distribution system(s) necessary to interconnect the distributed resource, and to determine, the cost of those modifications. [see comments to proposed Section XXX.090 (d)]

A facilities study agreement will be transmitted to the interconnection customer with the feasibility/impact study report. The facilities study agreement shall include an outline of the scope of the study and a good faith cost estimate to perform the facilities study. When the actual cost of the facilities study is below the cost estimate, the interconnection provider shall refund the difference to the interconnection customer without interest. In order to remain under consideration for interconnection, the interconnection customer must return the executed facilities study agreement or a request for an extension of time within 30 business days. The interconnection customer shall pay the estimated cost of the facilities study when the interconnection customer returns the executed facilities study agreement. If the interconnection provider determines that no transmission system or electric distribution system interconnection facilities are required, the facilities study will not be required and the project will proceed directly to the execution of an interconnection agreement.

Deleted: high voltage

Deleted: small resource

Deleted: with accuracy,

Deleted: The interconnection provider may also suggest optional modifications to the interconnection customer's proposed distributed generation equipment if the interconnection provider believes such modifications would reduce interconnection costs or provide other benefits.

Deleted: 1

Deleted: maximum binding

Deleted: provider may require a deposit of the equivalent of 50% of

Deleted: maximum binding

Deleted: high voltage

Deleted: power

- a) Transmission system and/or electric distribution system interconnection design for any required interconnection facilities and/or system modifications will be performed under a facilities study agreement between the interconnection customer and the interconnection provider. The interconnection provider may contract with consultants, including contractors acting on behalf of the transmission service provider or the electric distribution service provider, as appropriate, to perform the bulk of the activities required under the facilities study agreement. In some cases, the interconnection customer and the interconnection provider may reach agreement allowing the interconnection customer to separately arrange for the design of some of the required transmission or electric distribution interconnection facilities. In such cases, facility design will be reviewed and/or modified prior to acceptance by the interconnection provider, under the provisions of the facilities study agreement. If the parties agree to separately arrange for design and construction, interconnection providers shall make sufficient information available to the interconnection customer to permit the interconnection customer to obtain an independent design and cost estimate for any necessary facilities.

Deleted: High voltage t

Deleted: power

Deleted: high voltage t

Deleted: power

Deleted: high voltage t

Deleted: power

- b) Whether system upgrades are required or the required facilities are limited to interconnection facilities, the facilities study must be completed within 45 business days of the receipt of the facilities study agreement.
- c) Where system modifications or additional interconnection facilities are required to permit the interconnection of a distributed resource, the interconnection customer will bear the cost of such system upgrades or interconnection facilities as determined by the facilities study and at no more than the estimated cost provided for in the facilities study agreement. The interconnection customer may be credited for the cost of system or facility modifications or such costs may be offset by mutual agreement with subsequent interconnection customers, or by other laws, rules, tariffs, or billing experiments.
- d) An interconnection provider may propose to group facilities required for more than one interconnection customer addition in order to minimize facilities costs through economies of scale, but any interconnection customer may require the installation of facilities required for its own system if it is willing to pay the costs of those facilities.

Deleted: small resource

Deleted: binding maximum

Section XXX.130 [RESERVED]

Deleted: Compliance

Deleted: No later than 30 days after the effective date of this Code Part as amended, each interconnection provider shall file a tariff or tariffs for interconnection and parallel operation of distributed generation equipment in conformance with the provisions of this Code Part. The utility may file a new tariff or a modification of an existing tariff. Any modifications of existing tariffs or offerings of new tariffs relating to this subsection shall be consistent with this Code Part. Concurrent with the tariff filing in this section, each utility shall submit:¶

Section XXX.140 Designation of Contact Persons

- a) The interconnection provider and interconnection customer shall designate a person or persons who will serve as their respective contacts for all matters related to distributed resource interconnection.
- b) Each interconnection provider shall identify to the Commission's Director of the Consumer Services Division and the Director of the Energy Division its distributed resource contact person.
- c) Each interconnection provider shall provide convenient access through its internet web site to the names, telephone numbers, mailing addresses and electronic mail addresses for its distributed resource contact person.
- d) Each interconnection customer shall provide the names, telephone numbers, mailing addresses and electronic mail addresses for its distributed resource contact person(s) on its interconnection application.

¶ a) an initial review fee schedule and all supporting cost data for the fees;¶

¶ b) an interconnection agreement in form of the agreement attached as Appendix A; and¶

¶ c) standard applications for interconnection and parallel operation of distributed generation in the form of the attached applications in Appendices B and C.¶

Deleted: Interconnection Provider

Deleted: Each

Deleted: interconnection provider's

Deleted: generation

Deleted: generation

Deleted: generation

Deleted: ¶

¶

Section XXX.150 All Reasonable Efforts

The interconnection provider shall make all reasonable efforts to meet all time frames provided in these procedures unless the interconnection provider and the interconnection customer agree to a different schedule. The interconnection provider shall make all reasonable efforts to complete system upgrades on or before the estimated deadline for completion. If an interconnection provider cannot meet a deadline provided herein including deadlines provided in agreements, it shall notify the interconnection customer in writing no later than 5 business days after the deadline has passed. The notification shall explain the reason for the failure to meet the deadline and provide an estimated time by which it will complete the applicable interconnection procedure.

Deleted: three

Deleted: The interconnection provider shall also include the notification as well as any other relevant materials in an informational filing with the Commission no later than seven business days after notification is provided to the interconnection customer. Such filing shall be filed with the Chief Clerk's Office and copies shall be sent to the Director of the Consumer Services Division and the Director of the Energy Division.

Section XXX.160 Metering

Any metering necessitated by the use of the distributed resource shall be installed in accordance with the applicable regulatory requirements.

Section XXX.170 Installation and Commissioning

Deleted: ¶

Deleted: small resource

Deleted: state

- a) Upon execution of an interconnection agreement, the interconnection customer shall provide the interconnection provider with an estimate of the date on which installation of the distributed resource shall be completed. The estimated date shall be no later than the latter of 18 months following the date that the interconnection agreement was executed or 18 months following the date that system or facility modifications were completed by the interconnection provider. Installation of the interconnection customer's distributed resource shall be completed as specified in the standardized application and any studies indicating a need to modify the interconnection customer's distributed resource. The interconnection customer shall inform the interconnection provider in writing when the installation of the distributed resource is complete. If the customer fails to install and inform the interconnection provider of the installation within the latter of 18 months following the date that the interconnection agreement was executed or 18 months following the date that system or facility modifications were completed by the interconnection provider, the interconnection customer must reapply for interconnection before interconnection can take place unless an extension on the deadline to interconnect is mutually agreed to between the interconnection customer and the interconnection provider.

Deleted: distributed generation equipment

Deleted: distributed generation equipment

Deleted: distributed generation equipment

Deleted: distributed generation equipment

- b) Commissioning tests of an interconnection customer's installed distributed resource shall be performed pursuant to applicable codes and standards. The interconnection provider must be given 40 business days written notice, or as otherwise mutually agreed to by the parties, of the tests and

Deleted: distributed generation equipment

Deleted: 10

shall be present to complete the interconnection, inspect the interconnection customer's distributed resource for compliance with applicable codes and standards, and witness the commissioning tests.

Deleted: distributed generation equipment

- c) If the inspection of the interconnection customer's distributed resource does not result in a finding that the distributed resource is in compliance with applicable codes and standards and the executed agreement, the interconnection provider shall provide written notification to the interconnection customer explaining why the generation equipment was not in compliance. Once the interconnection customer has addressed the non-compliance in the notification, the interconnection customer shall provide the interconnection provider with 40 business days notice, unless otherwise mutually agreed to between interconnection customer and interconnection provider, that it is prepared for another inspection.

Deleted: distributed generation equipment

Deleted: distributed generation equipment

Deleted: 10

Section XXX.180 Reporting Requirements

Each interconnection provider shall maintain records concerning applications received for interconnection and parallel operation of a distributed resource. Such records will include the date each application is received, documents generated in the course of processing each application, correspondence regarding each application, and the final disposition of each application.

Deleted: generation

Section XXX.190 Complaint Procedures

Complaints alleging violations of Code Part XXX shall be filed pursuant to 83 Ill. Adm. Code 200.